

ABSTRACT

A system and method for the configuration, protection and repair of virtual ring networks is revealed. The illustrative embodiment of the present invention provides a method of configuring an existing network topology, such as a mesh topology, into a virtual ring-based topology. The virtual rings disclosed are configurable through the use of software contained at the constituent nodes. The illustrative embodiment of the present invention enables a network carrier to make quality of service guarantees to customers equivalent to that expected from UPSR and BLSR based networks without having to employ expensive protection schemes. Node and trunk failures within the virtual ring are often repairable through path recalculation within the virtual ring thereby enabling shared protection schemes to be implemented for the virtual ring.